

## FARADAY'S LAW & INDUCED E.M.F.

### MODEL: VTPL-FL-50

- To verify the Faraday and Lenz's law of induction by measuring the induced voltage as function of time. To Calculate the magnetic flux induced by the falling magnet as a function of the velocity of the magnet. The complete setup should include
- Data Logger:- Computer connection : Micro USB & Bluetooth, Sampling rate : minimum 100,000 samples per second or above, Inputs channels : 4, Power : Micro USB, Memory : Up to 250 k samples or above, Resolution sampling : less than 15 bits.
- Digital Timer & Photogate:- Display : 2 line LCD, Type : Micro controller based, Time resolution : not greater than 0.1 milli second, Mode : Time, Speed & Acceleration, Photogate : 2 numbers, Interface : USB, Operating voltage : 5V DC or above, Photogate detector : Infra-Red
- Coil Sets of different length.
- Voltage Sensor Input voltage range :  $\pm 25V$  or above, Input Voltage : AC or DC, Accuracy : maximum  $\pm 3\%$  over entire range, Sample Rate: above 10,000 samples per second.
- A cylindrical pipe of length minimum 30 cm. Cylindrical Magnet of material AlNiCo and diameter suitable to pass through the pipe and coil.
- Universal Clamp:-Material : Aluminium alloy, Tightening screw : 'T' type plastic knob, Rod : Aluminium.

*Note: There may be any change in specification due to continuous R & D without notice.*

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